

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO

Report Number: P642670

Luminaire Tested: ML5615LSFL409FS1E - 694TBZB - 900LM - 5000K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642670
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-45)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/17/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML5615LSFL409FS1E - 694TBZB - 900LM - 5000K
Description: ML56 RR, 40D TIR OPTIC, 6" TUSCON BRONZE GIMBAL TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1313.5 lumens
Efficiency: N/A
Efficacy: 125.1 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

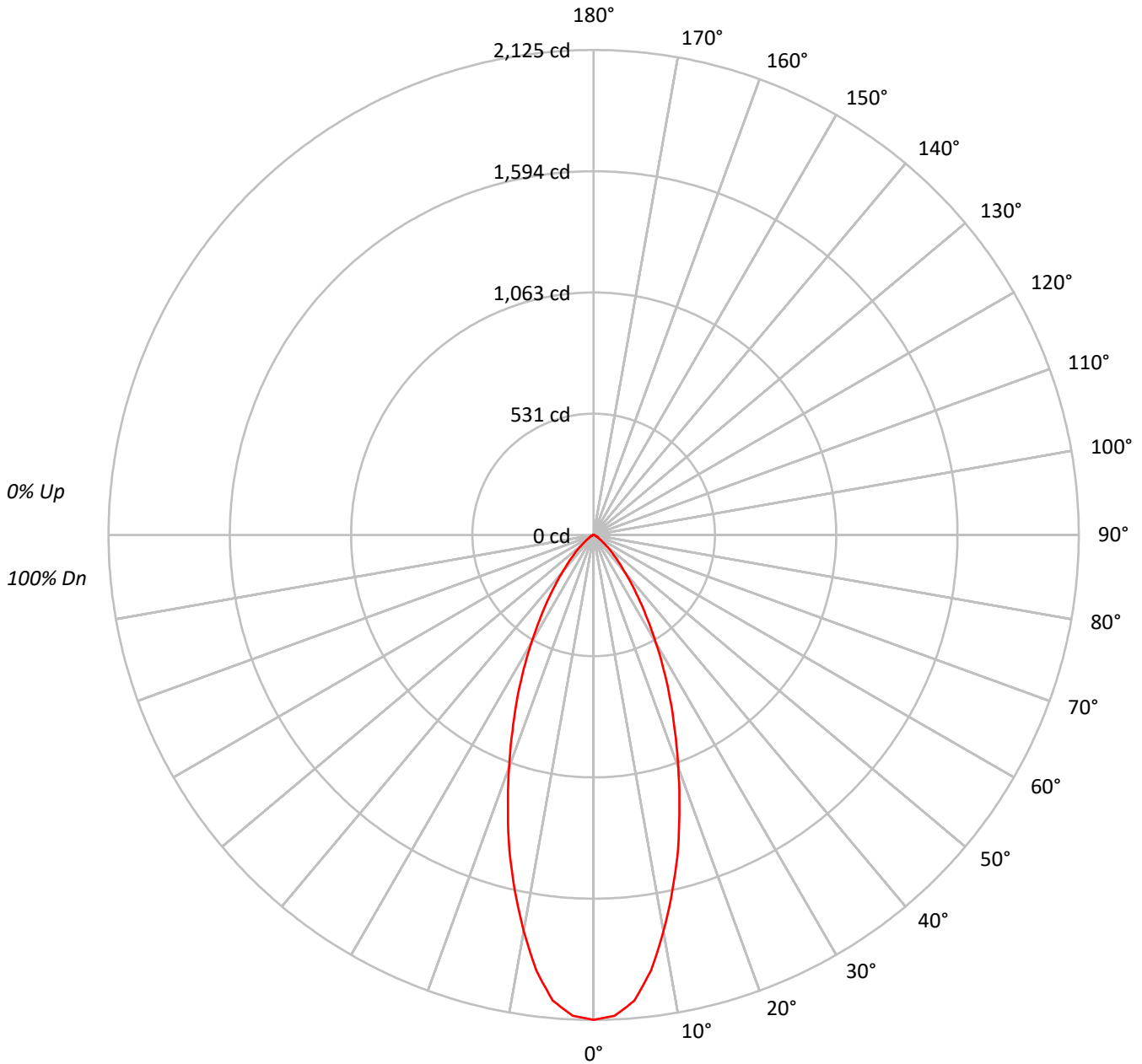
Input Watts (W): 10.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P642670

CATALOG NUMBER: ML5615LSFL409FS1E - 694TBZB - 900LM - 5000K

Luminous Intensity Polar Plot





TEST NUMBER: P642670

CATALOG NUMBER: ML5615LSFL409FS1E - 694TBZB - 900LM - 5000K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93					93			
2	108	103	99	96	106	101	98	95	98	95	92	95	93	91	92	90	89	87					87			
3	103	96	91	87	101	95	90	87	92	88	85	90	87	84	87	85	83	81					81			
4	97	90	85	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76					76			
5	93	84	79	74	91	84	78	74	82	77	73	80	76	73	79	75	72	71					71			
6	88	79	74	69	87	79	73	69	77	72	69	76	71	68	74	71	68	66					66			
7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	71	67	64	62					62			
8	80	71	65	61	79	70	65	61	69	64	61	68	64	60	67	63	60	59					59			
9	77	67	61	58	76	67	61	57	66	61	57	65	60	57	64	60	57	56					56			
10	73	64	58	54	72	63	58	54	63	58	54	62	57	54	61	57	54	53					53			

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	116476
5°	112728
10°	98139
15°	81016
20°	63169
25°	47882
30°	34417
35°	23443
40°	15143
45°	9699
50°	5723
55°	3154
60°	2116
65°	1479
70°	1090
75°	720
80°	347
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9699 cd/sqm



TEST NUMBER: P642670

CATALOG NUMBER: ML5615LSFL409FS1E - 694TBZB - 900LM - 5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.1	14.2
10°-20°	393.5	30.0
20°-30°	362.7	27.6
30°-40°	222.3	16.9
40°-50°	99.5	7.6
50°-60°	32.8	2.5
60°-70°	12.2	0.9
70°-80°	4.0	0.3
80°-90°	0.4	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	942.3	71.7
0°-40°	1164.6	88.7
0°-60°	1296.8	98.7
0°-90°	1313.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1313.5	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2125	
5°	2048	186
15°	1428	394
25°	792	363
35°	350	222
45°	125	99
55°	33	33
65°	11	12
75°	3	4
85°	0	0
90°	0	



TEST NUMBER: P642670

CATALOG NUMBER: ML5615LSFL409FS1E - 694TBZB - 900LM - 5000K

CANDELA DISTRIBUTION (FULL):

	0°
0°	2124.7
2.5°	2108.8
5°	2048.5
7.5°	1924.5
10°	1763.0
12.5°	1594.7
15°	1427.5
17.5°	1247.7
20°	1082.8
22.5°	929.3
25°	791.6
27.5°	663.1
30°	543.7
32.5°	439.0
35°	350.3
37.5°	274.1
40°	211.6
42.5°	163.8
45°	125.1
47.5°	93.3
50°	67.1
52.5°	46.6
55°	33.0
57.5°	25.0
60°	19.3
62.5°	15.9
65°	11.4
67.5°	9.1
70°	6.8
72.5°	5.7
75°	3.4
77.5°	2.3
80°	1.1
82.5°	1.1
85°	0.0
87.5°	0.0
90°	0.0

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



— 0°-180°

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)